MATHEMATICS: Numbers		
	What a child is learning	What adults could do and/or provide
Birth – 11 months	• Notices changes in number of objects/images or sounds in group of up to 3.	• Cooking- making welsh cakes and Easter cakes • LTN or in the gaden- children to experience nature, let them lay down in the grass, feel different materials such as leaves, sticks… • Number songs • Songs in different languages that includes numbers • Songs from different cultures • Mobiles, treasure baskets- make collection of natural objects during the LTN e.g. corns, leaves, sticks
8 – 20 months	• Develops an awareness of number names through their enjoyment of action rhymes and songs that relate to their experience of numbers. • Has some understanding that things exist, even when out of sight	
16 – 26 months	• Knows that things exist, even when out of sight. • Beginning to organise and categorise objects, e.g. putting all the teddy bears together or teddies and cars in separate piles. • Says some counting words randomly.	• Use pictures as a label to organise the toys • What's the time Mr Wolf • Animal sorting- groups , colours, size • Words/ numbers in different language • Language of the week • One to one correspondence e.g. snack time- one cup one child • Singing a special song at the end of the day- e.g. leaving song, Hello song • LTN- Making collections and then asking the children to sort them out • Tidying up toys- label the boxes • Say numbers in everyday situations- e.g. buttons • Saying random number words, counting the tadpoles • Easter baskets- hide and seek games • Treasure hunt in the garden- Easter egg hunt • Grouping the objects, counting, sorting
22 – 36 months	• Selects a small number of objects from a group when asked, for example, *'please give me one', 'please give me two'.* • Recites some number names in sequence. • Creates and experiments with symbols and marks representing ideas of number. • Begins to make comparisons between quantities. • Uses some language of quantities, such as *'more'* and *'a lot'.* • Knows that a group of things changes in quantity when something is added or taken away.	• Chinese New Year- look at the different patterns • Sand tray. Water tray play, sand saying more, a lot, less- begin to use the language of comparing • Mimic me games • Passport tickets- going to different places • LTN- look at the different footprint of the animals • Counting- one more, less

		• Hot cross bun in the bakers shop- counting song • Cooking- more sugar, less water • Hot Crass Bun songs • Counting daffodils petals, shamrocks • Race for CNY- ordinal number, who is first second. last • Role playing- Chinese New Year, Easter eggs shop. • Making comparisons- one more, two less, • Pancake Day- counting the pancakes, counting the flips • Writing in different language- Chinese numbers- invite the parents. • Experiment with Chinese numbers • Say numbers in different languages, compare similarities in how they sound
30 – 50 months	• Uses some number names and number language spontaneously. • Uses some number names accurately in play. • Recites numbers in order to 10. • Knows that numbers identify how many objects are in a set. • Beginning to represent numbers using fingers, marks on paper r pictures. • Sometimes matches numeral and quantity correctly. • Shows curiosity about numbers by offering comments or asking questions. • Compares two groups of objects, saying when they have the same number. • Shows an interest in number problems. • Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same. • Shows an interest in numerals in the environment. • Shows an interest in representing numbers. • Realises not only objects, but anything can be counted, including steps, claps or jumps.	• Measuring tape- use in the garden, measure lengths, depths, hole in the garden • CNY- role play, write menus, prices for dinner • Easter eggs- different patterns, shapes of eggs- matching opportunities • Hide objects in the garden- animals e.g. can you find me 5 dogs etc • Wring shopping list, counting money- go to Waitrose to buy it • Occupations- talk about different jobs • Pancake day- fractions e.g. cut in half, quarters • Setting up the shops- using money, provide labels • Number problems in real life situation • Matching objects to numbers, saying them, draw dots to represent the number • St David's Day- Welsh cakes- one cake for one person. How many cakes do we need for 8 children? • Outdoor play- busses and trains- how many passengers, pay for the tickets, set up row of chairs, conductor- introduce language such as more and lot, please give me one more, one less • Easter number songs- invite the parents for the Easter egg hunt • Easter- counting eggs, compare sizes

		• St David's Day- planting the seeds, count the number of seeds, compare the sizes, say big, bigger, the biggest • Mardi Gras-carnival, compare different costumes, sizes, show interest in different culture
40 – 60 months	• Recognise some numerals of personal significance. • Recognises numerals 1 to 5. • Counts up to three or four objects by saying one number name for each item. • Counts actions or objects which cannot be moved. • Counts objects to 10, and beginning to count beyond 10. • Counts out up to six objects from a larger group. • Selects the correct numeral to represent 1 to 5, then 1 to 10 objects. • Counts an irregular arrangement of up to ten objects. • Estimates how many objects they can see and checks by counting them. • Uses the language of 'more' and 'fewer' to compare two sets of objects. • Finds the total number of items in two groups by counting all of them. • Says the number that is one more than a given number. • Finds one more or one less from a group of up to five objects, then ten objects. • In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting. • Records, using marks that they can interpret and explain. • Begins to identify own mathematical problems based on own interests and fascinations. **Early Learning Goal** **Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.**	• Game- estimate and compare real order of places in the race • Parents to make the pancakes • Real life money problems • Chinese new year- shops, labels, money • Story in the pictures- put them in the right order • Real life occupations solving problems- e.g. fire in the woods, what happens to the animals • Window shop display e.g posters and labels for the shop • Australia day- count the animals, make up a race, who came first, second, last • Making a pictogram for favourite topping for the pancake, which had fewer? More? • Pancakes- counting the flips as tossing, how many in total, what is one less, one more? • Invite parents for the pancake race • Show on the calendar when the different festivals are • Introduce days of the weeks, months, seasons, count down number of days to the festival • Make own calendar- birthdays, festivals- put a sticker on the day when your birthday is. • Pancake day- tossing the pancake, count the number of pancakes, compare- introduce more and fewer, big and small. • Introduce adding and subtracting with more able- during the role play such as shopping • Fat Tuesday= Mardi Gras - introduce many/ much/ more - compare- eat little, less of food- healthy and non-healthy food.
MATHEMATICS: Shape, space and measure		
	What a child is learning	What adults could do and/or provide
Birth – 11 months	*Babies' early awareness of shape, space and measure grows from their sensory awareness and opportunities to observe objects and their movements, and to play and explore.*	• Family photos • Sensory trays- babies to explore the feelings of the

	See Characteristics of Effective Learning - Playing and Exploring and Physical Development	pancakes • Introduce different culture through food- e.g. noodles, paela • Soft toys of Australian animals • Mothers Day- photo of their mum • Sensory baskets full of different shapes- theme objects linked to the topics- Easter eggs, • Look at different artefacts from different countries- talk about the countries e.g. Chinese
8 – 20 months	• Recognises big things and small things in meaningful contexts. • Gets to know and enjoy daily routines, such as getting-up time, mealtimes, nappy time, and bedtime.	• Compare sizes of the animals • Visual timetable- show picture for each activity • Routines- now and next board- picture of the activity stuck on the velcro- post it when the activity has now finished • Create routine poster- draw together poster, stick pictures of the daily activities • Animal relationships e/g/ baby and the mothers- big rabbit and bunnies, dog and puppies, cat and kittens, lamb and sheep.
16 – 26 months	• Attempts, sometimes successfully, to fit shapes into spaces on inset boards or jigsaw puzzles. • Uses blocks to create their own simple structures and arrangements. • Enjoys filling and emptying containers. • Associates a sequence of actions with daily routines. • Beginning to understand that things might happen 'now'.	• Multicultural puzzle- a selection to complete • Use blocks/ cardboard boxes to make famous buildings • Cook birthday cakes- start with planning e.g. write a list of ingredience and buy them • Sequence for the recipe • Musical instrument- count the number of beats, faster, slower • Make bread for Easter story • Water paly, sand- filling containers- use flour, colour powders for the festival • Table with jigsaws- make their own puzzles, cut the photos of the family and put them back together. • Birthday charts- Photo of the children- Whose birthday is next? Soon? • Fill/ empty containers- Chinese New Years- fill the containers with the noodles and the rice • Cooking- Weigh rice, potatoes, noodles • Cardboard boxes- Construction building- shapes, sizes-

		describe sizes, compare • Use photos of Sydney Harbour bridge, Opera House and encourage children to have a go at building them using the wooden blocks • Visual timetable- introduce vocabulary such as before, later, now, soon, next- link to the festivals that we celebrate
22 – 36 months	• Notices simple shapes and patterns in pictures. • Beginning to categorise objects according to properties such as shape or size. • Begins to use the language of size. • Understands some talk about immediate past and future, e.g. '*before*', '*later*' or '*soon*'. • Anticipates specific time-based events such as mealtimes or home time	• Feeley boxes- what's in the box games, count the number of objects • Sand timers to take turns, count down, measure time and compare • Australian flag- count the stars, stripes, look at other flags from different countries • Mix and match the potatoes patterns- print and work out which potatoes it is • Easter story- act it out- different between the past and the future • Guess games e.g. how long till snack time? Home time? • Easter- patterns on the eggs • Grouping the eggs by the patterns, recognise different patterns • Making the pancakes-buying the ingredient, cooking, eating- introduce before, later • CNY race- size of the animals- big, small • Ordering the daffodils by the size • Matching the patterns on the eggs- e.g. half the eggs and find the matching other half. • Look at the patterns on the dragon, on the frogs. • Make pancakes- measure ingredience, how long does it take to make a pancake. • Anticipate events- snack time, tidy up time • How long does it take to get to the shop- walking, by bus, by train. • Recognise patterns- Mother's day, decorate eggs. • Chinese New Year- patterns on the bunting
30 – 50	• Shows an interest in shape and space by playing with shapes or making arrangements with objects.	• Make a numbered list of thing to do

months	• Shows awareness of similarities of shapes in the environment. • Uses positional language. • Shows interest in shape by sustained construction activity or by talking about shapes or arrangements. • Shows interest in shapes in the environment. • Uses shapes appropriately for tasks. • Beginning to talk about the shapes of everyday objects, e.g. '*round*' and '*tall*'.	• Simon says- games giving instructions using positional language • Positional language- group time games with different animals e.g. kangaroo is on top of my head • Shape hunt- find tree squares • Family- how many sisters, cousins? Where do they live- big/ little house. Whwre do they come from- country • Shape games- can you find a circle in the room • Cooking- measure the weight • Non standard units- how many sticks is a table long? • Games with positional language e.g. put the book under the table, on the table, next to, in front, beside • Car park- e.g. zebra crossing, find different shapes • Making signs and shapes in the garden e.g. stop sign, traffic lights • Timetable for shopping trip- who is going next? • Making the bridge- use different shapes, sizes, more able to name them • Draw around the 2D shapes- design their own building and them build a 3D model • Flags from different countries- what are they made of? What shapes? • Looking at the quantity- do we need the same for 3 or 10 children • Easter egg hunt with the shape e.g. circle, more able to add the colour e.g. blue circle • Appreciate different shapes, sizes, sorting them • Chinese New Year race- introduce positional language- ordinal numbers • Obstacle courses- Chinese New Year race • Make food for different festivals- cooking pancakes in the woods, e.g. stir fry • Finding the objects of different shapes- find in the garden something that is round. • Children make their own shapes for the garden • Look at the different flags-e.g. how many stars on Australian flag

40 – 60 months	• Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes. • Selects a particular named shape. • Can describe their relative position such as '*behind*' or '*next to*'. • Orders two or three items by length or height. • Orders two items by weight or capacity. • Uses familiar objects and common shapes to create and recreate patterns and build models. • Uses everyday language related to time. • Beginning to use everyday language related to money. • Orders and sequences familiar events. • Measures short periods of time in simple ways. **Early Learning Goal** **Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems.** **They recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them.**	• Line themselves in the high order • Writing cards for Mothers day • LTN- count the steps, how many are there- count and estimate • Role play in the Chinese restaurant • Holidays travel- what countries have you visited ? • Children position themselves in the order of height- who is the shortest, tallest, behind, next to • CNY race- Positional language- Animal race- behind, first, last, next • Daffodils- changes in grow • Make predictions- which one is heavier? Leaves or a small stone? • Make an experiment- show to the children that the bigger does not mean heavier- e.g. show example with the feather in the container • Waitrose trip- use real money to pay for the items, weight the items. • Chinese restaurant, role play, florist shop, Greengrocers • Make cards for different festivals e.g.Mothers day, Valentines day